

**Notice of Allowability**

Application No.

10/708,778

Examiner

D. Rutledge

Applicant(s)

BI, BAOKANG

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment and Drawings filed on 09 January 2007.
2. ☒ The allowed claim(s) is/are 1-3, 6-9, 13, 17, 19, 22, 24, 27-31, 36, 37, 39, 40, 42, 45, 46, 48, 49, 51, 53, 54.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>attached</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance                                    |
|  | 9. <input type="checkbox"/> Other _____  |

**DETAILED ACTION**

***Drawings***

1. The drawings filed on 12 May 2006 are acceptable.

***Allowable Subject Matter***

2. Claims 1-3, 6 – 9, 13, 17, 19, 22, 24, 27 – 31, 36, 37, 39, 40, 42, 45, 46, 48, 49, 51, 53 and 54 are allowed.
3. The following is an examiner's statement of reasons for allowance: The prior art does not teach or suggest an image generating system comprising a light generating means ; and array of zone plate modulators comprising a pair of complementary Fresnel zone plates, a modulation means for changing the optical path difference between the pair of complementary Fresnel zone plates and the zone plates operating as claimed; an illumination means; an electronic means; and a receiving surface. The prior art does not teach or suggest a direct viewing system comprising a light generating means; an array of zone plate modulators comprising a pair of complementary Fresnel zone plates, a modulation means for changing the optical path difference between the pair of complementary Fresnel zone plates and the zone plates operating as claimed; an illumination means; an electronic means; and a magnifying lens, all operating as claimed by the applicant. The prior art does not disclose a maskless lithography system comprising; a wave source; array of zone plate modulators comprising a pair of complementary Fresnel zone plates, a modulation means for changing the optical path difference between the pair of complementary Fresnel zone plates and the zone plates

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operating as claimed; an illumination means; an electronic means; and a first receiving surface. Nor does the prior art teach or suggest a method for generating patterns comprising: generating illumination waves; array of zone plate modulators comprising a pair of complementary Fresnel zone plates, a modulation means for changing the optical path difference between the pair of complementary Fresnel zone plates and the zone plates operating as claimed; directing the illumination waves to incident upon the array of zone plate modulators; processing pattern data to be presented electronically; operating the array of zone plate modulators electronically according to the pattern data; and receiving the modulated waves originating from the array of zone plate modulators and producing a patterned image.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Examiner's Amendment***

4. An Examiner's Amendment to the record appears below. The applicant has submitted an amendment in improper format, therefore, the following amendment places the amendment in proper format.

The application has been amended as follows:

IN THE CLAIMS:

Claim 1, line 14, delete "first" and

Line 21, delete "first"

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Claim 2, line 3, delete "first"

Claim 3, line 4, delete "first"

Claim 6, line 2, delete "first"

Claim 7, line 1, delete "first"

Claim 8, line 1, delete "first"

Claim 9, line 1, delete "first"

Claim 17, line 14, delete "first"

Claim 19, change "187" to --- 17 ---

Claim 27, line 14, delete "first"

Claim 36, line 3, delete "first"

Claim 37, line 2, delete "first"

Claim 45, line 22, after "modulators", insert – and producing a patterned image --


### ***Response Data***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Rutledge whose telephone number is (571) 272-2127. The examiner can normally be reached on Mon - Thurs, 6:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
D. Rutledge  
Primary Examiner  
Art Unit 2851

dr  
1/5/07